

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) ~~A Machine~~ machine for processing objects (11; 110), in particular hollow bodies ~~such as~~ including containers or preforms of containers, ~~of the type having the machine comprising:~~

a series of stations (12; 120) that are movable along a path in a loop circuit ~~and, each station of which has~~ having a gripping system (16; 160) intended to pick up an object (11; 110) at a point of loading and to return ~~it the object~~ at a point of discharge of the path,

~~of the type in which~~ wherein, between the points of loading and discharge, the object (11; 110) is moved relative to the station (12; 120) by the gripping system (16; 160), from an initial loading position to at least one processing position, then to a final discharge position,

~~of the type in which~~ the machine ~~has~~ having devices (22; 220; 221) for processing objects held by each station, ~~of the type in which~~

each station is furnished with a gripping unit (14; 140) composed of at least two gripping systems (16; 160), ~~and of the type in which~~ wherein the gripping unit (14; 140) is movable, with respect to the station, between at least a first position, for which a first object carried by a first system (16; 160) of the unit (14; 140) is in ~~its~~ an initial position while a second object carried by

a second system (16; 160) of the unit (14; 140) is in a processing position, and a last position for which the first object is in a processing position while the second object is in ~~its~~ a final position,

~~characterized in that~~ wherein, between the loading and discharge of an object, the path followed by the object comprises a number of turns of the circuit that is between the number of gripping systems (16; 160) of each processing unit (14; 140) and the next lower whole number.

2. (currently amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein each time the gripping unit (14; 140) passes in front of the loading point, ~~it~~ the gripping unit is able to pick up an object.

3. (currently amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein each gripping unit (14; 140) is movable in rotation with respect to the associated station (12; 120) around an axis (An) that is tangent, at a given point, to the direction of travel of the station (12; 120) at that given point.

4. (currently amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein each gripping unit (14; 140) is sequentially movable between at least as many discrete positions as each gripping unit (14; 140) has gripping systems (16; 160).

5. (Currently Amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein the initial and final positions of each object (11; 110), with respect to the station carrying ~~it~~ the object, are identical.

6. (Currently Amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein the stations (12; 120) are integral with a drive device, composed of a rotary turntable (10; 100) of the machine.

7. (Currently Amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein the stations (12; 120) are integral with a drive device, composed of a closed loop drive chain.

8. (Currently Amended) ~~Processing~~ The processing machine according to claim 6, ~~characterized in that it~~ wherein the processing machine is intended for processing containers (11), and ~~in that~~ each gripping unit (14) has two gripping systems (16) each of which carries one hollow body essentially by ~~its~~ an open end of the hollow body, and ~~in that~~ the objects are arranged in inverse directions along two parallel axes that are contained in a radial plane of the path and which are offset on either side of the axis of rotation (An) of the unit (14), and ~~in that~~ the positions of the two containers along the direction of ~~their~~ the axes are partially overlapped.

9. (currently amended) ~~Processing~~ The processing machine according to claim 8, ~~characterized in that~~ wherein in the initial position and final position, the containers are in the vertical position with the open end downward in order to undergo a first and last rinse treatment.

10. (currently amended) ~~Processing~~ The processing machine according to claim 8, ~~characterized in that~~ wherein in the processing position, the containers are in the vertical position with the open end upward in order to undergo an intermediate cleaning treatment during which a cleaning agent is injected into the container.

11. (Currently amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that~~ wherein the processing devices (22) follow the path of the stations (12), and each device (22) is movable with respect to the adjacent stations (12) between a disengaged position and an active position in which ~~it~~ the device can cooperate with at least one of the objects carried by one of the gripping units (14).

12. (Currently Amended) ~~Processing~~ The processing machine according to claim 11, ~~characterized in that~~ wherein each processing device (22) has at least two processing means (24, 26) each of which is intended to cooperate with one object, the two objects being carried respectively by two adjacent stations (12).

13. (Currently Amended) ~~Processing~~ The processing machine according to claim 5, ~~characterized in that~~ wherein the processing devices (22) are movable in rotation with respect to ~~the~~ a turntable (10; 100) around an axis that is appreciably parallel to the axis of rotation (A0) of the turntable.

14. (currently amended) ~~Processing~~ The processing machine according to claim 13, ~~characterized in that~~ wherein the gripping units (14) and the processing devices (22) are arranged appreciably on the same circle around the axis of rotation (A0) of the turntable, and ~~in that~~ each processing device (22) is interposed between two adjacent gripping units (14), and ~~in that~~, in the active position, each processing device (22) cooperates with objects of the two adjacent units flanking ~~it~~ the respective processing device.

15. (Currently Amended) ~~Processing~~ The processing machine according to claim 6, ~~characterized in that~~ wherein the processing devices (22) are movable in rotation with respect to the endless chain around an axis that is appreciably perpendicular to the principal plane of the endless chain.

16. (Currently Amended) ~~Processing~~ The processing machine according to claim 15, ~~characterized in that~~ wherein the gripping units (14) and the processing units (22) are arranged alternately on the endless chain so that each processing device (22) is interposed between two

Amendment under 37 C.F.R. § 1.111
U.S. Application No. 10/018,342

adjacent gripping units (14), and ~~in that~~, in the active position, each processing device (22) cooperates with the objects of the two adjacent units flanking ~~it~~ the respective processing device.

17. (Currently Amended) ~~Processing~~ The processing machine according to claim 12, ~~characterized in that it~~ wherein the processing machine is intended for processing containers (11), and each of the processing devices (22) has at least one nozzle (24) for spraying a rinse fluid and one nozzle (26) for spraying a cleaning agent toward the containers.

18. (Currently Amended) ~~Processing~~ The processing machine according to claim 1, ~~characterized in that it~~ wherein the processing devices (220; 221) are mounted on ~~the~~ a frame of the machine and are placed facing the areas traversed by the objects during ~~their~~ routing.

19. (currently amended) ~~Processing~~ The processing machine according to claim 18, ~~characterized in that it has~~ further comprising an area for loading objects and an area for discharging objects, at least one area for changing the position of the gripping units (140) between the loading and discharge areas, and wherein the processing devices (220; 221) are placed between the area for loading the objects and an area for changing the position of the gripping units (140) and/or between an area for changing the position of the gripping units (140) and the discharge area.

Amendment under 37 C.F.R. § 1.111
U.S. Application No. 10/018,342

20. (currently amended) ~~Processing~~ The processing machine according to claim 19, ~~characterized in that it has~~ further comprising at least two areas for changing the position of the gripping units (140) between the loading and discharge areas and ~~in that~~ the processing devices (220; 221) are interspersed between at least two successive areas for changing the position of the gripping units (140).

21. (Currently Amended) ~~Processing~~ The processing machine according to claim 18, ~~characterized in that it~~ wherein the processing machine is intended for heating container preforms (110), and the processing devices (220; 221) are composed of means of heating said preforms.